

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 14 JUN 2006

WIPO PCT

Applicant's or agent's file reference <b>P022830WO</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. <b>PCT/GB2005/000669</b>	International filing date (day/month/year) <b>28.02.2005</b>	Priority date (day/month/year) <b>27.02.2004</b>	
International Patent Classification (IPC) or national classification and IPC <b>INV. A24D1/02</b>			
Applicant <b>BRITISH AMERICAN TOBACCO (INVESTMENTS) LIMITED et</b>			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 9 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 2 sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).			
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I      Basis of the report <input type="checkbox"/> Box No. II     Priority <input checked="" type="checkbox"/> Box No. III    Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input checked="" type="checkbox"/> Box No. IV    Lack of unity of invention <input checked="" type="checkbox"/> Box No. V     Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input checked="" type="checkbox"/> Box No. VI    Certain documents cited <input type="checkbox"/> Box No. VII    Certain defects in the international application <input type="checkbox"/> Box No. VIII   Certain observations on the international application			
Date of submission of the demand  <b>22.12.2005</b>	Date of completion of this report  <b>13.06.2006</b>		
Name and mailing address of the international preliminary examining authority: <div style="display: flex; align-items: center;"> <div>             European Patent Office              D-80298 Munich              Tel. +49 89 2399 - 0 Tx: 523656 epmu d              Fax: +49 89 2399 - 4465           </div> </div>		Authorized officer  <b>Marzano Monterosso,</b>  Telephone No. +49 89 2399-2902	



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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on
- ☒ the international application in the language in which it was filed
  - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3(a) and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4(a))
    - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))
2. With regard to the **elements**\* of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-32 as originally filed

**Claims, Numbers**

25-57 as originally filed

1-24 filed with telefax on 22.12.2005

**Drawings, Sheets**

1/8-8/8 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

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1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,  
☒ claims Nos. 54-57

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):  
☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 54-57 are so unclear that no meaningful opinion could be formed (*specify*):

**see separate sheet**

- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*).  
☐ no international search report has been established for the said claims Nos.  
☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:  
☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.  
☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.  
☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13<sup>ter</sup>.1(a) or (b) and 13<sup>ter</sup>.2.  
☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Preliminary Examining Authority in a form and manner acceptable to it.  
☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.  
☐ See separate sheet for further details

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**Box No. IV Lack of unity of invention**

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1. ☒ In response to the invitation to restrict or pay additional fees, the applicant has, within the applicable time limit:
- ☒ restricted the claims.
  - ☐ paid additional fees.
  - ☐ paid additional fees under protest and, where applicable, the protest fee.
  - ☐ paid additional fees under protest but the applicable protest fee was not paid.
  - ☐ neither restricted the claims nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
- ☐ complied with.
  - ☒ not complied with for the following reasons:  
**see separate sheet**
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
  - ☐ the parts relating to claims Nos. .

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-53
	No: Claims	
Inventive step (IS)	Yes: Claims	1-53
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-53
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VI    Certain documents cited**

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1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

**see separate sheet**

**Re Item III.**

Claims 54-57 contain references to the description and the drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

**Re Item IV.**

The separate groups of inventions are:

1-45,

A smoking article comprising a rod of smokable material, a wrapper about said rod and a web material positioned between said rod and said wrapper, as well as a method and an apparatus for making said smoking article.

46-53,

A method for flavouring an adsorbent-containing web material.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

Both group of inventions include as a common concept a the application of a flavourant on a web material. Said common concept is however not novel (see e.g. US3744496).

The special technical features (STF) of claims 1, 16 and 32 (and claims related thereto) relate to the positioning of said web material inside a smoking material and solve the problem of a precisely localized addition of flavourants in the smoking article.

The STF of claim 46 (and claims related thereto) relate to the parameters of application of a flavourant to the surface of the adsorbent-containing web material. Said STF solve the problem of improving the adsorption of the flavourant by the adsorbent of the web material. It follows that the above stated STF are not the same nor are they linked as to form a single general inventive concept. Therefore the requirements of Rule 13 PCT are not met.

**Re Item V.**

1 Reference is made to the following documents:

- D1: US-A-3 744 496 (MCCARTY S,US ET AL) 10 July 1973 (1973-07-10)
- D2: EP-A-0 533 423 (ROTHMANS INTERNATIONAL TOBACCO LIMITED;  
ROTHMANS INTERNATIONAL SERVICE) 24 March 1993 (1993-03-24)
- D3: WO 03/013284 A (JAPAN TOBACCO INC; TABUCHI, HIROMI; FUKAMACHI,  
MASAOMI; OKUYAMA, HIDET) 20 February 2003 (2003-02-20)
- D4: US-A-5 137 034 (PERFETTI ET AL) 11 August 1992 (1992-08-11)

2 INDEPENDENT CLAIM 1

- 2.1 Document D1 is considered the closest prior art for the subject matter of claim 1: this document discloses a smoking article comprising a rod of smokable material, a wrapper about said smokable material (in D1 referred to as "normal outer wrap", see col. 2, l. 36-38) and a web material comprising an adsorbent material and a flavourant (see col. 3, l. 55-62), the web material being positioned between the rod of smokable material and said wrapper (see example I).

Claim 1 differs from D1 in that the web material extends over only a portion of the length of the rod of smokable material. Claim 1 is therefore novel (Article 33(2) PCT).

- 2.2 The problem to be solved by the present invention may be regarded as providing a precisely localized addition of flavourants in the smoking article.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons: none of the documents of the available prior art discloses a smoking article in which the web material extends over only a portion of the length of the rod of smokable material. In D1 the intermediate wrapper is used for the tobacco rod, which implies that it extends over the entire length of the smokable rod.

Also documents D2 and D3 fail to disclose a smoking article including a web material extending only over a portion of the smokable rod.

Thus the skilled person does not find any indication in the prior art which would lead him to modify the cigarette according to D1 to obtain a cigarette having the features of claim 1 of the present application.

- 3 Claims 2-15 are dependent on claim 16 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**4 INDEPENDENT CLAIMS 16 and 32**

- 4.1 Document D3 is considered to represent the most relevant state of the art: in the present opinion reference will be made to document EP 1421863 (D3'), which is the European application in the regional phase of document D3 and is of easier understanding for language reasons.

Document D3' discloses (cfr. claim 10) a method for manufacturing a smoking article including feeding an inner web and an outer web to a wrapping section of a cigarette manufacturing machine, whereby at least one of the two webs has flavourant material applied thereto.

From this, the subject-matter of independent claim 16 differs in that:

one of the two webs, namely the web comprising an adsorbent material and a flavourant is fed to cutting means to be cut into sections, which are then applied to the wrapper.

The subject-matter of claim 16 is therefore novel (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as providing a precisely localized addition of flavourants in the smoking article.

The solution to this problem proposed in claim 16 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons: none of the documents of the available prior art discloses a method of preparing a smoking article whereby the web containing flavourant material is cut before being fed to the outer wrapper. In D3' the flavour containing web is fed continuously together with the outer wrapper and no hints are given for a possible localized application of flavourants.

- 4.2 Claims 17-31 are dependent on claim 16 and as such also meet the requirements of the PCT with respect to novelty and inventive step.
- 4.3 The same arguments apply for independent apparatus claim 32 which is considered novel and to involve an inventive step for the same reasons set in paragraph 5.1 above.
- 4.4 Claims 33-45 are dependent on claim 32 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**5 INDEPENDENT CLAIM 46**

- 5.1 The document D4 is regarded as being the closest prior art to the subject-matter of claim



46, and shows a method of flavouring an adsorbent-containing web material comprising applying a flavourant to a surface of the web material and subjecting the material to temperature treatment for a determined time, to allow adsorption of the flavourant by the adsorbent in the web material.

The subject-matter of claim 46 differs from this known method in that the temperature and time parameters for subjecting the web material to allow adsorption of the flavourant.

The subject-matter of claim 46 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as how to improve adsorption of flavourant by the adsorbent of the web material.

The solution to this problem proposed in claim 46 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons: The available prior art does not disclose nor fairly suggest a combination of parameters of temperature and exposure time as in the present invention.

- 5.2 Claims 47-53 are dependent on claim 46 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

## **Re Item VI**

### **Certain documents cited**

Patent No US-B1-6 705 325

Publication date 16 March 2004

Filing date 13 March 2003

**CLAIMS**

1. A smoking article comprising a rod of smokable material, a wrapper about said rod of smokable material and a web material comprising an adsorbent material and a flavourant, the web material being positioned between said rod of smokable material and said wrapper, wherein said web material extends over only a portion of the length of the rod of smokable material.
2. A smoking article according to Claim 1, further comprising a filter element containing an adsorbent material operable to reduce vapour phase components of smoke during smoking.
3. A smoking article according to Claim 1 or 2, wherein the web material is a cellulosic sheet material.
4. A smoking article according to Claim 3, wherein the cellulosic sheet material is paper.
5. A smoking article according to any one of Claims 1-4, wherein said adsorbent material is incorporated within the web material as an integral component.
6. A smoking article according to any preceding claim, wherein said adsorbent material is activated carbon.
7. A smoking article according to any preceding claim, wherein said adsorbent is in granular, powder or particulate form having a mean particle size less than 20 $\mu$ m.
8. A smoking article according to any preceding claim, wherein the loading level of adsorbent in said web material is 10-45% by weight of the web material.
9. A smoking article according to any preceding claim, wherein said flavourant is one or more of the following: menthol, alcohols, esters, ketones, lactones, essential oils, and aldehydes.
10. A smoking article according to any preceding claim, wherein said web material is adhered to an inner surface of said wrapper.
11. A smoking article according to any preceding claim, wherein said portion is at or towards the mouth end of said rod of smokable material.
12. A smoking article according to any preceding claim, wherein said portion is at or towards the lighting end of said rod of smokeable material.

13. A smoking article according to any preceding claim, wherein the smoking article comprises two or more separate web materials, each web material containing an adsorbent and a flavourant.
14. A smoking article according to any preceding claim, wherein the web material comprises two different flavourants, including multiple lines of separate individual flavourants or mixtures of flavourants.
15. A smoking article according to any preceding claim, wherein the rod of smokable material comprises tobacco material having a flavourant applied thereto.
16. A method of making a smoking article comprising feeding a web material, the web material comprising an adsorbent material and a flavourant, to a cutting means, cutting said web material into sections, transferring said sections onto a wrapper and circumscribing a rod of smokable material with said wrapper.
17. A method according to Claim 16, wherein said web material is cut into sections having a length corresponding to twice the length of said web material in said smoking article.
18. A method according to Claim 16, wherein said web material is cut into sections having a length less than the length of the rod of smokable material.
19. A method according to any one of Claims 16-18, wherein said web material is transferred onto said wrapper at or towards a position corresponding to the mouth end of the smoking article.
20. A method according to any one of Claims 16-19, wherein adhesive is applied to a surface of said web material before said web material is cut into sections.
21. A method according to Claim 20, wherein said surface having adhesive applied thereto is transferred onto the wrapper such that the adhesive contacts said wrapper.
22. A method according to Claim 20 or 21, wherein said adhesive is applied in a strip along or towards an edge of said web material.
23. A method according to any one of Claims 16-19, wherein adhesive is applied to a surface of said wrapper before said web material is transferred onto the surface of said wrapper.
24. A method according to any one of Claims 20-23, wherein said wrapper is heated to bond the section of web material to said wrapper.